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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,784	06/07/2001	Roderic O'Connor Cole	PC10717A	8847
23913	7590	01/26/2004	EXAMINER	
PFIZER INC 150 EAST 42ND STREET 5TH FLOOR - STOP 49 NEW YORK, NY 10017-5612			CELSA, BENNETT M	
			ART UNIT	PAPER NUMBER
			1639	

DATE MAILED: 01/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.	Applicant(s)	
09/876,784	COLE ET AL.	
Examiner	Art Unit	
Bennett Celsa	1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11/6/03.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Status of the Claims***

Claims 1-6 are currently pending.

Claims 1-5 are under consideration.

Claim 6 is withdrawn from consideration as being directed to a nonelected invention.

### ***Election/Restrictions***

Applicant's election without traverse of Group I (claims 1-5) and mass spectrometer as a species in the correspondence dated 11/6/03 is acknowledged.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols US Pat. No. 6,012,488 (1/00: filed 9/98) and Maiefski et al. 6,309,541 (10/01: filed 10/99).

The presently claimed invention is directed to:

A method of analyzing multiple compound samples (e.g. libraries) using a device (e.g. mass spectrometer) having a single input channel for compounds comprising:

i) introducing multiple compound samples into corresponding multiple separate solvent flow streams having:

a means to connect each stream to the analysis device and

a means to timely introduce a stream to the analysis device

to form a single segmented flow stream having separate segments, with each segment containing no more than one of said multiple compound samples

ii) introducing the segmented flow stream into the analysis device which is selectively operated under conditions specific for each compound in the flow stream;

iii) correlating the input of said samples with the segmented flow stream to a timed output analysis of said compounds whereby specific compounds are correlated to specific analysis results; and

iv) wherein output analysis for compound samples with known analytical properties and solvent function as demarcation lines between results of compounds being analyzed.

Nichols discloses a method for analyzing a sample comprising "a plurality of compounds" (e.g. a library) by separating the sample (e.g. purifying using HPLC) into a plurality of different sample flows (e.g. streams) each containing a different compound

Art Unit: 1639

and then flow a small slug of each sample at a time (e.g. "a means to timely introduce") to the detector (e.g. "analysis device" i.e. a mass spectrometer), with a slug of solvent between the slugs of different samples to identify the beginning and end of each sample slug. See e.g. Nichols Abstract; claims; col. 1 lines 1-27 and figures. The Nichols reference further discloses "a means to connect each stream to the analysis device" and "a means to timely introduce a stream to the analysis device to form a single segmented flow stream having separate segments, with each segment containing no more than one of said multiple compound samples" which is identical to that disclosed in the present specification. E.g. compare the reference figures (e.g. figures 1-3) to the present specification figures (e.g. figures 1-3). See also Nichols col. 1, lines 28-col. 2.

The Nichols reference method differs from the presently claimed method in the failure of the Nichols reference to specifically teach:

- ii) introducing the segmented flow stream into the analysis device which is selectively operated under conditions specific for each compound in the flow stream ;
- iii) correlating the input of said samples with the segmented flow stream to a timed output analysis of said compounds whereby specific compounds are correlated to specific analysis results ; and
- iii) wherein output analysis for samples of any compounds with known analytical properties and solvent function as demarcation lines between results of compounds being analyzed (e.g. the use of a control).

The Maiefski et al. reference teaches a multiple channel high throughput purification system for purifying a plurality of samples, preferably four or more samples from a chemical library, utilizing a mass spectrometer for analyzing the sample to determine if a target compound is within the sample portion. E.g. see Abstract. The Maiefski et al. reference further teaches that "sample management during the purification process" is a known problem in the art of conventional purification processes of large chemical libraries (See e.g. col. 2, especially lines 59-67). The Maeifski reference solves this problem by automation e.g. by tracking the samples (e.g. bar codes) utilizing a bar code reader and computer controlled spectrometer (e.g. see col. 7-8) which permits sample tracking, timed sample movement and mass spectrometer sample readings to permit spectrometer sample identification, analysis and timed correlation between sample and results wherein the sampled compounds are compared with known analytical and solvent function (e.g. the use of a control "as a demarcation ... between results of compounds being analyzed"). See e.g. Col. 7-8; col. 17-18; and patent claims (e.g. " ... detector being configured to detect at least one sample component within the respective sample flow ...").

One of ordinary skill in the art would be motivated to automate the Nichol's reference device including the mass spectrometer to permit sample tracking, timed compound analysis and compound result correlation; and the use of a compound control for means of sample comparison as taught by the Maiefski reference since the Maeifski reference addresses library compound purification and analytical problems which are shared by the Nichols reference method. Accordingly, the Nichols method

Art Unit: 1639

and apparatus faces the same problems addressing the purification and screening of library compounds as faced by Maeifski and thus one of ordinary skill in the art would be motivated to adopt the automation solution adopted by the Maeifski reference.

Accordingly, it would have been prima facie obvious to one of ordinary skill in the art at the time of applicant's invention to modify the Nichol's reference method and apparatus in the matter taught by the Maeifski reference in order to overcome the sample management problems of purification and analysis of library compounds and thus arrive at the presently claimed invention with a reasonable expectation of success.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bennett Celsa whose telephone number is 703-305-7556. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on 703-306-3217. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Bennett Celsa  
Primary Examiner  
Art Unit 1639



B.C.  
January 22, 2004